

## Claims

1. Composite material, which is to be used in sliding bearings, comprising a metallic support (1) and at least one reinforcement material having an open structure (2), whereby the support (1) and the reinforcement material (2) are connected to each other by means of a metallic connection and whereby an overlay (4) is provided on the reinforcement material (2) as an additional layer, characterized in that the overlay (4) contains polyethylene (PE).
2. Composite material according to Claim 1, characterized in that the overlay (4) contains high-molecular polyethylene, ultrahigh-molecular polyethylene and/or polyethylene compounds.
3. Composite material according to Claim 1 or 2, characterized in that the material of the overlay (4) at least partly fills the openings of the reinforcement material (2).
4. Composite material according to any one of the preceding claims, characterized in that the overlay (4), measured above the reinforcement material (2), has a thickness of 5  $\mu\text{m}$  to 1.5 mm, in particular 100 to 300  $\mu\text{m}$ .

5. Composite material according to any one of the preceding claims, characterized in that the support (1) and the reinforcement material (2) are connected to each other by means of sintering, welding, soldering and/or galvanizing.
6. Composite material according to any one of the preceding claims, characterized in that the support (1) is a support made from steel, stainless steel, aluminum, bronze, brass, titanium and/or copper or an alloy thereof.
7. Composite material according to any one of the preceding claims, characterized in that the support (1) has a thickness of 0.05 to 10 mm, in particular 0.2 to 3 mm.
8. Composite material according to any one of the preceding claims, characterized in that the reinforcement material having an open structure (2) is a fabric, in particular wire mesh, expanded metal, fleece, in particular metal fleece, metal foam and/or a perforated plate.
9. Composite material according to any one of the preceding claims, characterized in that the reinforcement material (2) consists of metal, in particular bronze, copper, chrome, nickel, zinc, zinc-ferrous alloy, zinc-nickel alloy and/or aluminum or alloy thereof.

10. Composite material according to any one of the preceding claims, characterized in that the reinforcement material (2) has a thickness of 0.1 to 6 mm, in particular 0.2 to 2 mm.
11. Composite material according to any one of the preceding claims, characterized in that a metallic intermediate layer (3) is provided between support (1) and reinforcement material (2) as an additional layer.
12. Composite material according to Claim 11, characterized in that the intermediate layer (3) is applied on the support (1) or the reinforcement material (2) by means of galvanizing and/or plating.
13. Composite material according to Claim 11 or 12, characterized in that the intermediate layer (3) consists of at least one of the materials specified in Claim 9.
14. Composite material according to any one of Claims 11 to 13, characterized in that the intermediate layer (3) has a thickness of 1 to 100  $\mu\text{m}$ .
15. Sliding bearing bush, containing a composite material according to any one of Claims 1 to 14.
16. Use of a composite material according to any one of Claims 1 to 14 which is to be used in sliding bearings.

17. Method for the production of the composite material according to any one of Claims 1 to 14, wherein the metallic connection between support (1) and reinforcement material (2) is produced by means of sintering, welding, soldering and/or galvanizing.
18. Method according to Claim 17, wherein the intermediate layer (3) is applied by means of plating and/or galvanizing.
19. Method according to Claim 17 or 18, wherein the overlay (4) is introduced into the reinforcement material (2) by means of calendering, painting and/or laminating.